

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-22 Canceled

23. (Currently Amended) An electrohydraulic brake system for motor vehicles comprising:

a brake pressure sensor (8) (2) including a pressure space (3) and a pressure sensor (8) in fluid communication with the pressure space (3) to measure pressure levels within the pressure space (3), which can be actuated by a brake pedal, the pressure space (3) having a variable volume defined in part by a moveable piston connected to the brake pedal;

a plurality of pressure sensors (9,10) that are associated with respective wheel brakes;

a pressurizing medium reservoir, having at least one electrohydraulic pressure source, by which pressure can be applied to wheel brakes of the motor vehicle, wherein the brakes can be connected via at least one hydraulic connection, which can be sealed off by at least one seperation-separation valve;

a device for identifying a deceleration instruction from a driver;

inlet valves which are connected before the wheel brakes and outlet valves which are connected after the wheel brakes;

an electronic control and regulation unit, which, as a function of signals which are generated by the device for the detection of deceleration instruction from a driver, actuates the pressure source, at least one seperation-separation valve, as well as the inlet valves and the outlet valves; and

a one piece valve block (16), which receives the at least one seperation-separation valve, the plurality of pressure sensors (9,10), as well as the inlet valves and the outlet valves,

where the pressure source, the wheel brakes as well as the brake pressure sensor can be connected with the pressurizing medium reservoir, wherein the brake pressure sensor (2) is integrated in the valve block (16) in such a manner that all of the hydraulic connections between the brake pressure sensor (2) and the at least one operation-separation valve (27-30), of which there is at least one, as well as the inlet valves (47-50) are formed by bores in the valve block (16).

24. (Previously presented) An electrohydraulic brake system according to claim 23, wherein the electrohydraulic pressure source consists of a pump (26) which is driven by an electromotor (21) and which is also integrated in the valve block (16) in such a manner that the connections between the pump (26) and the inlet valves (47-50) consist of bores in the valve block (16).
25. (Previously presented) An electrohydraulic brake system according to claim 23, wherein the electrohydraulic pressure source consists of a high-pressure reservoir, which is loaded by means of a hydraulic pump (26).
26. (Previously presented) An electrohydraulic brake system according to claim 23, wherein the pressurizing medium reservoir (6) is arranged on the valve block (16) and it is formed in its entirety or partially by the valve block (16), and in that the hydraulic connections between the pressure source (26) and the pressurizing medium reservoir (6), as well as between the hydraulic connections between the brake pressure sensor (2) and the pressurizing medium reservoir (6), consists of bores in the valve block (16).
27. (Previously presented) An electrohydraulic brake system according to claim 23, wherein the electronic control and regulation unit (14) is attached directly to the valve block (16) in such a manner that electrical, magnetic and thermal signal and power transmissions occur without the use of lines.
28. (Previously presented) An electrohydraulic brake system according to claim 27, wherein the hydraulic connection (22) between the pressure source (26) and the pressurizing medium reservoir (6), and optionally parts of the pressure medium reservoir (6) can be heated.

29. (Previously presented) An electrohydraulic brake system according to claim 23, wherein the valve block (16) and a piston rod (24), which is used to actuate the brake pressure sensor (2), are connected in a manner which allows elastic oscillations with the body, or a dashboard (66) of the motor vehicle, or to a pedal system.
30. (Previously presented) An electrohydraulic brake system according to claim 23, wherein the pressurizing medium reservoir (6) presents a first chamber (61) as well as a second chamber (62), where the aspiration side of the pump (26) and, via the outlet valves (57-60), the wheel brakes (17-20) are connected to the first chamber (61), while the brake pressure sensor (2) is connected to the second chamber (62) via a first, current-free closed (CC) valve (5), which can be regulated by analog means.
31. (Previously presented) An electrohydraulic brake system according to claim 31, wherein one or more devices (11, 12) are provided for detecting the pressurizing medium level in the first and the second chamber (61-62).
32. (Previously presented) An electrohydraulic brake system according to claim 23, wherein the brake pressure sensor (2) is connected to the input connection of the inlet valves (47-50) via a second, current-free closed (CC) valve (13), which can be regulated by analog means.
33. (Previously presented) An electrohydraulic brake system according to claim 23, wherein the inlet valves and the outlet valves (47-50, 57-60) are designed as electromagnetically activated, current-free closed (CC) 2/2-way control valves.
34. (Currently amended) An electrohydraulic brake system according to claim 23, wherein the at least one ~~seperation~~ separation valve comprises a plurality of ~~seperation~~ separation valves (27, 28, 29, 30) that are associated with corresponding ones of the wheel brakes (17, 18, 19, 20), and in that the plurality of separation valves (27-30) are designed as electromagnetically activated, current-free open (CO) valves, which can be regulated by analog means.

35. (Withdrawn) An electrohydraulic brake system according to claim 34, wherein the brake pressure sensor (2) is designed as a two-circuit main brake cylinder, whose secondary pressure space (45) is connected via the first, current-free closed (CC) valve (5), which can be regulated by analog means, to the second chamber (62), while the primary pressure space (25) of said cylinder is connected via an electromagnetically actuated 2/2-way control valve (32) to the secondary pressure space (45).
36. (Previously presented) An electrohydraulic brake system according to claim 23, wherein the brake pressure sensor (2) is designed as a single-circuit main brake cylinder.
37. (Withdrawn) An electrohydraulic brake system according to claim 23, wherein a hydraulic pressure space (33) is connected before the piston (42) of the main brake cylinder (2), where the pressure space receives pressure that is generated by the pump (26).
38. (Withdrawn) An electrohydraulic brake system according to claim 37, wherein the line (34) which connects the pressure side of the pump (26) to the pressure space (33), an electromagnetically activated, current-free (CO) 2/2-way or control valve (35) is inserted, which makes it possible to cut off the line (34).
39. (Withdrawn) An electrohydraulic brake system according to claim 37, wherein the hydraulic pressure space (33) is connected with the insertion of a check valve (41) to the pressuring medium reservoir (6).
40. (Withdrawn) An electrohydraulic brake system according to claim 37, wherein the piston (42) delimits a trailing space (44), which is connected to the pressurizing medium reservoir (6), which in turn is connected via the check valve (41) to the pressure space (33).
41. (Withdrawn) An electrohydraulic brake system according to claim 37, wherein an air regulator (53) is provided between the check valve (41) and the pressurizing medium reservoir (6), and a parallel connection is provided between the hydraulic series connection, which consists of the check valve (41) and the air regulator (53), and an

- electromagnetically activated, current-free open (CO) control valve (52).
42. (Withdrawn) An electrohydraulic brake system according to claim 23, wherein the pressure sensor (2) is connected to the aspiration side of the pump (26) and, between the connection of the pressure sensor (2) and the pressurizing medium reservoir (6), a check valve (56) is arranged, which opens towards the pump (56).
43. (Canceled)
44. (Canceled)